

AO 120 (Rev. 2/99)

<b>TO: Mail Stop 8</b> <b>Director of the U.S. Patent &amp; Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been  
 filed in the U.S. District Court Northern District of California on the following ☒ Patents or ☐ Trademarks:

DOCKET NO. <b>CV 11-02699 MEJ</b>	DATE FILED 6/6/11	U.S. DISTRICT COURT Northern District of California, 450 Golden Gate Ave, San Francisco, CA 94102
PLAINTIFF <b>OSRAM GMBH</b>		DEFENDANT <b>LG ELECTRONICS, INC., ET AL.</b>
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 6,812,500	6,459,130	
2 7,078,732	6,927,469	
3 7,126,162		
4 7,151,283		
5 7,629,621		

In the above—entitled case, the following patent(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading			
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK		
1 6,975,011				
2 7,199,454				
3 7,271,425				
4 6,849,881				
5 7,106,040				

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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CLERK Richard W. Wieking	(BY) DEPUTY CLERK Gloria Acevedo	DATE June 10, 2011
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Copy 1—Upon initiation of action, mail this copy to Commissioner    Copy 3—Upon termination of action, mail this copy to Commissioner  
 Copy 2—Upon filing document adding patent(s), mail this copy to Commissioner    Copy 4—Case file copy

1 information and belief, LG's willful infringement of the '732 patent makes this case exceptional,  
2 and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

3 42. LG's infringement of the '732 patent has caused irreparable injury to OSRAM and  
4 will continue to cause irreparable injury until LG is enjoined from further infringement.

### 5 COUNT III

#### 6 **(Infringement of the '162 Patent)**

7 43. OSRAM incorporates and realleges the allegations set forth in foregoing  
8 paragraphs 1 through 42, as if fully set forth herein.

9 44. LG has been and is infringing the '162 patent, directly and/or indirectly, by  
10 making, using, offering to sell, and/or selling within the United States, and/or importing into the  
11 United States white LEDs or products containing white LEDs, and/or actively inducing such  
12 activities, without authority from OSRAM. These infringing products include white LEDs  
13 manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue  
14 infringement of additional claims, LG has been and is infringing claim 1 of the '162 patent. As  
15 just a few examples, and without narrowing in any way OSRAM's identification of unlicensed  
16 white LEDs and products containing such LEDs as infringing the '162 patent, LG's infringing  
17 products include without limitation model names LEMWS37P80LZ00, LEMWS59T80LZ00,  
18 LEMWS59T70GZ00, LEMWS52P80LZ00, LEMWH51W80LZ00, LEMW51X75GZ00, and  
19 LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs  
20 (e.g., upon information and belief, the Flatron E2290).

21 45. LG's infringement of the '162 patent has injured OSRAM, and thus OSRAM is  
22 entitled to recover damages adequate to compensate for LG's infringement, together with interest  
23 and costs.

24 46. Before the filing of this action, OSRAM specifically informed LG of the '162  
25 patent, so LG has had actual knowledge of the '162 patent. LG purposefully continued its  
26 infringing activity despite knowledge of the '162 patent and, upon information and belief, despite  
27 an objectively high likelihood that its action constituted infringement of one or more valid claims  
28 of the '162 patent.

1           47.     Upon information and belief, LG has been and is willfully infringing the '162  
2 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon  
3 information and belief, LG's willful infringement of the '162 patent makes this case exceptional,  
4 and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

5           48.     LG's infringement of the '162 patent has caused irreparable injury to OSRAM and  
6 will continue to cause irreparable injury until LG is enjoined from further infringement.

7                                 **COUNT IV**

8                                 **(Infringement of the '283 Patent)**

9           49.     OSRAM incorporates and realleges the allegations set forth in foregoing  
10 paragraphs 1 through 48, as if fully set forth herein.

11           50.     LG has been and is infringing the '283 patent, directly and/or indirectly, by  
12 making, using, offering to sell, and/or selling within the United States, and/or importing into the  
13 United States white LEDs or products containing white LEDs, and/or actively inducing such  
14 activities, without authority from OSRAM. These infringing products include white LEDs  
15 manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue  
16 infringement of additional claims, LG has been and is infringing claim 1 of the '283 patent. As  
17 just a few examples, and without narrowing in any way OSRAM's identification of unlicensed  
18 white LEDs and products containing such LEDs as infringing the '283 patent, LG's infringing  
19 products include without limitation model names LEMWS37P80LZ00, LEMWS59T80LZ00,  
20 LEMWS59T70GZ00, LEMWS52P80LZ00, LEMWH51W80LZ00, LEMW51X75GZ00, and  
21 LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs.

22           51.     LG's infringement of the '283 patent has injured OSRAM, and thus OSRAM is  
23 entitled to recover damages adequate to compensate for LG's infringement, together with interest  
24 and costs.

25           52.     Before the filing of this action, OSRAM specifically informed LG of the '283  
26 patent, so LG has had actual knowledge of the '283 patent. LG purposefully continued its  
27 infringing activity despite knowledge of the '283 patent and, upon information and belief, despite  
28

1 an objectively high likelihood that its action constituted infringement of one or more valid claims  
2 of the '283 patent.

3 53. Upon information and belief, LG has been and is willfully infringing the '283  
4 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon  
5 information and belief, LG's willful infringement of the '283 patent makes this case exceptional,  
6 and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

7 54. LG's infringement of the '283 patent has caused irreparable injury to OSRAM and  
8 will continue to cause irreparable injury until LG is enjoined from further infringement.

9 **COUNT V**

10 **(Infringement of the '621 Patent)**

11 55. OSRAM incorporates and realleges the allegations set forth in foregoing  
12 paragraphs 1 through 54, as if fully set forth herein.

13 56. LG has been and is infringing the '621 patent, directly and/or indirectly, by  
14 making, using, offering to sell, and/or selling within the United States, and/or importing into the  
15 United States white LEDs or products containing white LEDs, and/or actively inducing such  
16 activities, without authority from OSRAM. These infringing products include white LEDs  
17 manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue  
18 infringement of additional claims, LG has been and is infringing claim 1 of the '621 patent. As  
19 just a few examples, and without narrowing in any way OSRAM's identification of unlicensed  
20 white LEDs and products containing such LEDs as infringing the '621 patent, LG's infringing  
21 products include without limitation model names LEMWS37P80LZ00, LEMWS59T80LZ00,  
22 LEMWS59T70GZ00, LEMWS52P80LZ00, LEMWH51W80LZ00, LEMW51X75GZ00, and  
23 LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs  
24 (e.g., upon information and belief, the Flatron E2290).

25 57. LG's infringement of the '621 patent has injured OSRAM, and thus OSRAM is  
26 entitled to recover damages adequate to compensate for LG's infringement, together with interest  
27 and costs.  
28

58. Before the filing of this action, OSRAM specifically informed LG of the '621 patent, so LG has had actual knowledge of the '621 patent. LG purposefully continued its infringing activity despite knowledge of the '621 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '621 patent.

59. Upon information and belief, LG has been and is willfully infringing the '621 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '621 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

60. LG's infringement of the '621 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

#### **COUNT VI**

##### **(Infringement of the '130 Patent)**

61. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 60, as if fully set forth herein.

62. LG has been and is infringing the '130 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '130 patent. As an example, and without narrowing in any way OSRAM's identification of unlicensed LEDs having the claimed structure and products containing such LEDs as infringing the '130 patent, upon information and belief LG's infringing products include without limitation model name 47LW5600, which upon information and belief contains one or more infringing LEDs.

63. LG's infringement of the '130 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

64. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '130 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '130 patent.

65. Upon information and belief, LG has been and is willfully infringing the '130 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '130 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

66. LG's infringement of the '130 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

#### **COUNT VII**

##### **(Infringement of the '469 Patent)**

67. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 66, as if fully set forth herein.

68. LG has been and is infringing the '469 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '469 patent. As an example, and without narrowing in any way OSRAM's identification of unlicensed LEDs having the claimed structure and products containing such LEDs as infringing the '469 patent, upon information and belief LG's infringing products include without limitation model name 47LW5600, which upon information and belief contains one or more infringing LEDs.

69. LG's infringement of the '469 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

70. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '469 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '469 patent.

71. Upon information and belief, LG has been and is willfully infringing the '469 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '469 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

72. LG's infringement of the '469 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

#### COUNT VIII

##### **(Infringement of the '011 Patent)**

73. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 72, as if fully set forth herein.

74. LG has been and is infringing the '011 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '011 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed LEDs having the claimed structure and products containing such LEDs as infringing the '011 patent, LG's infringing products include without limitation model names LEMWS52P80LZ00 and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs (e.g., upon information and belief, the 47LW5600).

75. LG's infringement of the '011 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

76. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '011 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '011 patent.

77. Upon information and belief, LG has been and is willfully infringing the '011 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '011 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

78. LG's infringement of the '011 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

**COUNT IX**

**(Infringement of the '454 Patent)**

79. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 78, as if fully set forth herein.

80. LG has been and is infringing the '454 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '454 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed LEDs and products containing such LEDs as infringing the '454 patent, LG's infringing products include without limitation model names LEMWS37P80LZ00, LEMWS59T80LZ00, LEMWS59T70GZ00, LEMWS52P80LZ00, LEMWH51W80LZ00, LEMW51X75GZ00, and LEMWS52P75GZ00, and any and all products containing one or more



of such infringing LEDs (e.g., upon information and belief, the Flatron E2290, 47LW5600, and 32LE5300).

81. LG's infringement of the '454 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

82. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '454 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '454 patent.

83. Upon information and belief, LG has been and is willfully infringing the '454 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '454 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

84. LG's infringement of the '454 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

#### COUNT X

##### **(Infringement of the '425 Patent)**

85. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 84, as if fully set forth herein.

86. LG has been and is infringing the '425 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '425 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed LEDs and products containing such LEDs as infringing the '425 patent, LG's infringing products include without limitation model names LEMWS52P80LZ00 and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs.

87. LG's infringement of the '425 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

88. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '425 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '425 patent.

89. Upon information and belief, LG has been and is willfully infringing the '425 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '425 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

90. LG's infringement of the '425 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

**COUNT XI**

**(Infringement of the '881 Patent)**

91. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 90, as if fully set forth herein.

92. LG has been and is infringing the '881 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '881 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed LEDs and products containing such LEDs as infringing the '881 patent, LG's infringing products include without limitation model names LEMWS59T80LZ00 and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs.

93. LG's infringement of the '881 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

94. Upon information and belief, LG purposefully continued its infringing activity despite knowledge of the '881 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '881 patent.

95. Upon information and belief, LG has been and is willfully infringing the '881 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '881 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

96. LG's infringement of the '881 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

**COUNT XII**

**(Infringement of the '090 Patent)**

97. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 96, as if fully set forth herein.

98. LG has been and is infringing the '090 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States LEDs having the claimed structure or products containing such LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '090 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed LEDs and products containing such LEDs as infringing the '090 patent, LG's infringing products include without limitation model names LEMWS59T80LZ00 and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs.

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10 Attorneys for Plaintiff OSRAM GmbH

11  
 12 UNITED STATES DISTRICT COURT  
 13 NORTHERN DISTRICT OF CALIFORNIA

14 OSRAM GMBH

15 Plaintiff,

16 v.

17 LG ELECTRONICS, INC., LG INNOTEK  
 18 CO., LTD., LG ELECTRONICS U.S.A., INC.,  
 and LG INNOTEK U.S.A., INC.

19 Defendants.  
 20

ORIGINAL FILED

JUN - 6 2011

Richard W. Winkling  
 Clerk, U.S. District Court  
 Northern District of California  
 San Jose

Case No. **CV 11-02699**  
**COMPLAINT FOR PATENT**  
**INFRINGEMENT**

MEJ

**DEMAND FOR JURY TRIAL**

21 Plaintiff OSRAM GmbH ("OSRAM") complains and alleges as follows against defendants  
 22 LG Electronics, Inc., LG Innotek Co., Ltd., LG Electronics U.S.A., Inc., and LG Innotek U.S.A.,  
 23 Inc. (collectively "LG" or "Defendants"):

24 **NATURE OF THE ACTION**

25 1. OSRAM brings this action to obtain damages for LG's unlawful infringement of  
 26 OSRAM's valuable patent rights on light-emitting diode ("LED") technology and to enjoin LG's  
 27 continuing infringement.  
 28

1           99. LG's infringement of the '090 patent has injured OSRAM, and thus OSRAM is  
2 entitled to recover damages adequate to compensate for LG's infringement, together with interest  
3 and costs.

4           100. Upon information and belief, LG purposefully continued its infringing activity  
5 despite knowledge of the '090 patent and, upon information and belief, despite an objectively high  
6 likelihood that its action constituted infringement of one or more valid claims of the '090 patent.

7           101. Upon information and belief, LG has been and is willfully infringing the '090  
8 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon  
9 information and belief, LG's willful infringement of the '090 patent makes this case exceptional,  
10 and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

11           102. LG's infringement of the '090 patent has caused irreparable injury to OSRAM and  
12 will continue to cause irreparable injury until LG is enjoined from further infringement.

13                               **PRAYER FOR RELIEF**

14           WHEREFORE, OSRAM respectfully requests that the Court grant relief as follows:

15           A. A judgment for OSRAM against LG on all counts asserted in this Complaint;

16           B. A judgment that LG has infringed the '500 patent, the '732 patent, the '162 patent,  
17 the '283 patent, the '621 patent, the '011 patent, the '454 patent, the '425 patent, the '881 patent,  
18 the '090 patent, the '130 patent, and the '469 patent;

19           C. An order and judgment preliminarily and permanently enjoining LG and its  
20 officers, agents, servants, employees, attorneys and all persons in active concert or participation  
21 with any of them, and their parents, subsidiaries, divisions, successors and assigns, from infringing  
22 the '500 patent, the '732 patent, the '162 patent, the '283 patent, the '621 patent, the '011 patent,  
23 the '454 patent, the '425 patent, the '881 patent, the '090 patent, the '130 patent, and the '469  
24 patent;

25           D. A judgment awarding OSRAM damages in the amount sufficient to compensate it  
26 for LG's infringement, together with prejudgment and post-judgment interest and costs, pursuant  
27 to 35 U.S.C. § 284;

1 E. A judgment trebling the damages awarded to OSRAM by reason of LG's willful  
2 infringement, pursuant to 35 U.S.C. § 284;

3 F. A judgment declaring this case "exceptional" under 35 U.S.C. § 285 and awarding  
4 OSRAM its attorneys' fees, expenses and costs incurred in this action; and

5 G. A judgment awarding OSRAM such other and further relief as this Court deems  
6 just and proper.

7  
8 Dated: June 2, 2011

Respectfully submitted,

9  
10 

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28 Attorneys for Plaintiff OSRAM GmbH

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**JURY DEMAND**

Plaintiff OSRAM hereby demands a trial by jury of any and all issues properly triable by jury.

Dated: June 2, 2011

Respectfully submitted,



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Attorneys for Plaintiff OSRAM GmbH

2. OSRAM was founded over 100 years ago and is one of the two largest lighting manufacturers in the world. Light from OSRAM shines in about 150 countries. OSRAM has 40,000 employees worldwide, supplying customers around the globe from its 46 production sites in 17 countries.

3. OSRAM is a high-tech company in the lighting industry and has maintained a strong commitment to research and development, particularly in the field of LEDs. Business in this area is growing rapidly and has taken on major strategic importance. LEDs are also an energy-efficient "green" technology. OSRAM's milestones in the development of LED technology include the first surface-mounted LEDs and the first LEDs that emit white light ("white LEDs") using conversion technology, and these innovative technologies are the subject of patents asserted in this complaint.

4. OSRAM developed novel conversion technology for white LEDs, which enables production of white LEDs using blue-emitting semiconductors and suitable phosphor converters, and first introduced white LEDs using conversion technology in 1996.

5. There is enormous demand within the lighting industry for the technologies developed by OSRAM, in part because white LEDs are becoming the most widespread type of LED. Typical applications include backlighting of displays and both interior and exterior vehicle lighting, and white LEDs are now being used increasingly for general illumination.

6. With several thousand patents and patent applications, OSRAM holds a strong intellectual property position in the field of LED technology. As a result of the enormous demand for the technologies developed by OSRAM, and in particular for OSRAM's conversion for white LEDs, OSRAM has licensed many major companies around the world.

7. Unlike the many other respected companies who have obtained licenses from OSRAM to use OSRAM's valuable patented LED technologies, LG has continued to engage in unauthorized, infringing use of OSRAM's patented LED technologies and has refused to recognize the value of OSRAM's patents.



8. OSRAM therefore brings this action against LG for patent infringement under the patent laws of the United States, Title 35, United States Code. OSRAM seeks damages, injunctive relief, and other relief due to LG's unlawful conduct.

#### PARTIES

9. OSRAM GmbH is a German corporation with its principal place of business at Hellabrunner Strasse 1, 81543 Munich, Germany.

10. LG Electronics, Inc. ("LGE") is a Korean corporation with its principal place of business at LG Twin Towers, 20, Yeouido-dong, Yeongdongpo-gu, Seoul 150-721, Korea. LGE manufactures and provides a wide range of products incorporating LEDs, including, e.g., televisions, computer monitors, and mobile devices, which are offered for sale and sold within the United States.

11. LG Innotek Co., Ltd. ("LGIT") is a Korean corporation with its principal place of business at Seoul Square 20F, Namdaemunno 5-ga, Jung-gu, Seoul 100-714, Korea. LGIT manufactures LEDs, lighting modules containing LEDs for use in LED luminaires, and backlight units for use in, e.g., televisions, computer monitors, and mobile devices, which are upon information and belief offered for sale and sold within the United States.

12. LG Electronics U.S.A., Inc. ("LGE USA") is a Delaware corporation with its principal place of business at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632. Upon information and belief, LGE USA also has an office at 150 East Brokaw Road, San Jose, California 95112. Upon information and belief, LGE USA is a wholly owned subsidiary of LGE. LGE USA imports and supplies consumer electronics incorporating LEDs, including, e.g., televisions and computer monitors, to retailers in the United States.

13. LG Innotek U.S.A., Inc. ("LGIT USA") is a California corporation with its principal place of business at 10225 Willow Creek Road, San Diego, California 92131. LGIT USA also has an office at 2540 North First Street, Suite 400, San Jose, California 95131. Upon information and belief, LGIT USA is a wholly owned subsidiary of LGIT. Upon information and belief, LGIT USA offers LED-containing products manufactured by LGIT for sale in the United States.

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1 Jürgen Schneider, and Ralf Schmidt. A true and correct copy of the '500 patent is attached hereto  
2 as Exhibit 1.

3 19. U.S. Patent No. 7,078,732 ("the '732 patent"), entitled "Light-Radiating  
4 Semiconductor Component with a Luminescence Conversion Element," issued on July 18, 2006,  
5 naming inventors Ulrike Reeh, Klaus Höhn, Norbert Stath, Günter Waitl, Peter Schlotter, Jürgen  
6 Schneider, and Ralf Schmidt. A true and correct copy of the '732 patent is attached hereto as  
7 Exhibit 2.

8 20. U.S. Patent No. 7,126,162 ("the '162 patent"), entitled "Light-Radiating  
9 Semiconductor Component with a Luminescence Conversion Element," issued on October 24,  
10 2006, naming inventors Ulrike Reeh, Klaus Höhn, Norbert Stath, Günter Waitl, Peter Schlotter,  
11 Jürgen Schneider, and Ralf Schmidt. A true and correct copy of the '162 patent is attached hereto  
12 as Exhibit 3.

13 21. U.S. Patent No. 7,151,283 ("the '283 patent"), entitled "Light-Radiating  
14 Semiconductor Component with a Luminescence Conversion Element," issued on December 19,  
15 2006, naming inventors Ulrike Reeh, Klaus Höhn, Norbert Stath, Günter Waitl, Peter Schlotter,  
16 Jürgen Schneider, and Ralf Schmidt. A true and correct copy of the '283 patent is attached hereto  
17 as Exhibit 4.

18 22. U.S. Patent No. 7,629,621 ("the '621 patent"), entitled "Light-Radiating  
19 Semiconductor Component with a Luminescence Conversion Element," issued on December 8,  
20 2009, naming inventors Ulrike Reeh, Klaus Höhn, Norbert Stath, Günter Waitl, Peter Schlotter,  
21 Jürgen Schneider, and Ralf Schmidt. A true and correct copy of the '621 patent is attached hereto  
22 as Exhibit 5.

23 23. U.S. Patent No. 6,975,011 ("the '011 patent"), entitled "Optoelectronic  
24 Semiconductor Component Having Multiple External Connections," issued on December 13,  
25 2005, naming inventors Karlheinz Arndt, Herbert Brunner, Franz Schellhorn, and Günter Waitl.  
26 A true and correct copy of the '011 patent is attached hereto as Exhibit 6.

27 24. U.S. Patent No. 7,199,454 ("the '454 patent"), entitled "Optoelectronic  
28 Semiconductor Component," issued on April 3, 2007, naming inventors Karlheinz Arndt, Herbert

1 Brunner, Franz Schellhorn, and Günter Waitl. A true and correct copy of the '454 patent is  
2 attached hereto as Exhibit 7.

3 25. U.S. Patent No. 7,271,425 ("the '425 patent"), entitled "Optoelectronic  
4 Component," issued on September 18, 2007, naming inventors Karlheinz Arndt, Georg Bogner,  
5 Günter Waitl, and Mattias Winter. A true and correct copy of the '425 patent is attached hereto as  
6 Exhibit 8.

7 26. U.S. Patent No. 6,849,881 ("the '881 patent"), entitled "Optical Semiconductor  
8 Device Comprising a Multiple Quantum Well Structure," issued on February 1, 2005, naming  
9 inventors Volker Harle, Berthold Hahn, Hans-Jürgen Lugauer, Helmut Bolay, Stefan Bader,  
10 Dominik Eisert, Uwe Strauss, Johannes Völkl, Ulrich Zehnder, Alfred Lell, and Andreas Weimar.  
11 A true and correct copy of the '881 patent is attached hereto as Exhibit 9.

12 27. U.S. Patent No. 7,106,090 ("the '090 patent"), entitled "Optical Semiconductor  
13 Device With Multiple Quantum Well Structure," issued on September 12, 2006, naming inventors  
14 Volker Harle, Berthold Hahn, Hans-Jurgen Lugauer, Helmut Bolay, Stefan Bader, Dominik Eisert,  
15 Uwe Strauss, Johannes Volkl, Ulrich Zehnder, Alfred Lell, and Andreas Weimer. A true and  
16 correct copy of the '090 patent is attached hereto as Exhibit 10.

17 28. U.S. Patent No. 6,459,130 ("the '130 patent"), entitled "Optoelectronic  
18 Semiconductor Component," issued on October 1, 2002, naming inventors Karlheinz Arndt,  
19 Herbert Brunner, Franz Schellhorn, and Günter Waitl. A true and correct copy of the '130 patent  
20 is attached hereto at Exhibit 11.

21 29. U.S. Patent No. 6,927,469 ("the '469 patent"), entitled "Optoelectronic  
22 Semiconductor Component," issued on August 9, 2005, naming inventors Karlheinz Arndt,  
23 Herbert Brunner, Franz Schellhorn, and Günter Waitl. A true and correct copy of the '469 patent  
24 is attached hereto at Exhibit 12.

25 30. The '500 patent, the '732 patent, the '162 patent, the '283 patent, the '621 patent,  
26 the '011 patent, the '454 patent, the '425 patent, the '881 patent, the '090 patent, the '130 patent,  
27 and the '469 patent are assigned to plaintiff OSRAM GmbH.

**COUNT I**

**(Infringement of the '500 Patent)**

31. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 30, as if fully set forth herein.

32. LG has been and is infringing the '500 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States white LEDs or products containing white LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include white LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '500 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed white LEDs and products containing such LEDs as infringing the '500 patent, LG's infringing products include without limitation model names LEMWS37P80LZ00, LEMWS59T80LZ00, LEMWS59T70GZ00, LEMWS52P80LZ00, LEMWH51W80LZ00, LEMW51X75GZ00, and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs (e.g., upon information and belief, the Flatron E2290).

33. LG's infringement of the '500 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

34. Before the filing of this action, OSRAM specifically informed LG of the '500 patent, so LG has had actual knowledge of the '500 patent. LG purposefully continued its infringing activity despite knowledge of the '500 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '500 patent.

35. Upon information and belief, LG has been and is willfully infringing the '500 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon information and belief, LG's willful infringement of the '500 patent makes this case exceptional, and thus OSRAM is entitled to recover attorneys' fees under 35 U.S.C. § 285.

36. LG's infringement of the '500 patent has caused irreparable injury to OSRAM and will continue to cause irreparable injury until LG is enjoined from further infringement.

## **COUNT II**

### **(Infringement of the '732 Patent)**

37. OSRAM incorporates and realleges the allegations set forth in foregoing paragraphs 1 through 36, as if fully set forth herein.

38. LG has been and is infringing the '732 patent, directly and/or indirectly, by making, using, offering to sell, and/or selling within the United States, and/or importing into the United States white LEDs or products containing white LEDs, and/or actively inducing such activities, without authority from OSRAM. These infringing products include white LEDs manufactured by LGIT. As exemplary only, and without prejudice to OSRAM's right to pursue infringement of additional claims, LG has been and is infringing claim 1 of the '732 patent. As just a few examples, and without narrowing in any way OSRAM's identification of unlicensed white LEDs and products containing such LEDs as infringing the '732 patent, LG's infringing products include without limitation model names LEMWS59T70GZ00, LEMWS52P80LZ00, LEMW51X75GZ00, and LEMWS52P75GZ00, and any and all products containing one or more of such infringing LEDs.

39. LG's infringement of the '732 patent has injured OSRAM, and thus OSRAM is entitled to recover damages adequate to compensate for LG's infringement, together with interest and costs.

40. Before the filing of this action, OSRAM specifically informed LG of the '732 patent, so LG has had actual knowledge of the '732 patent. LG purposefully continued its infringing activity despite knowledge of the '732 patent and, upon information and belief, despite an objectively high likelihood that its action constituted infringement of one or more valid claims of the '732 patent.

41. Upon information and belief, LG has been and is willfully infringing the '732 patent, and thus OSRAM is entitled to recover increased damages under 35 U.S.C. § 284. Upon